

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





EXTENSION SERVICE  
*Review*

JUNE 1958



WHERE DO YOU FIT IN  
THIS MARKETING PICTURE?





Official monthly publication of  
Cooperative Extension Service:  
U. S. Department of Agriculture  
and State Land-Grant Colleges  
and Universities cooperating.

*The Extension Service Review is for Extension educators—in County, State and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their community.*

*The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes, and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.*

Vol. 29

June 1958

No. 6

## EAR TO THE GROUND

Prepared in  
Division of Information Programs  
Federal Extension Service, USDA  
Washington 25, D.C.

Division Director: *Lester A. Schlup*

Editor: *Edward H. Roche*

### In This Issue

- 115 What is marketing
- 116 Where marketing fits in extension
- 117 Responding to the challenge
- 118 Bringing home the market facts
- 119 The right place at the right time
- 120 Putting research to work
- 121 From wheat to flour
- 122 This school rang the bell
- 123 New markets don't just happen
- 126 Marketing aid for producers
- 127 Marketing—farming's other half
- 128 Reflecting market needs
- 129 Everybody gains when producer meets processor
- 131 Let the buyer know—and know the buyer's needs
- 133 Cutting processing costs
- 135 How does this help the farmer

In planning this special issue on marketing, we sought the answers to four questions: What is marketing? How is marketing related to other areas of extension work? Where do various workers fit in the total extension marketing effort? Who benefits from increased marketing efficiency?

The first question is answered by Assistant Director C. B. Ratchford, North Carolina. He describes marketing in terms of the many functions involved in moving goods from the producer to the consumer, and the persons who perform these functions.

The need, the challenge, and the place of marketing in extension are told by P. V. Kepner, FES deputy administrator. He points out that increased efficiency in marketing is equally as important as efficiency in production. And to attain this objective, close coordination between all extension workers is essential.

In the next several articles, agents, supervisors, and specialists explain their roles in this broad marketing picture. These articles, and the illustration on pages 124 and 125, may help you answer the question posed on the cover, "Where do you fit in this marketing picture?"

The question of who benefits from increased marketing efficiency is answered in the article on page 135 and the illustration on the back cover. Author Lloyd Davis of FES points out that the early adopter of improved marketing practices receives short-run gains, the same as the early adopter of better production practices. In the long-run, however, the benefits flow back and forth between marketer, producer, and consumer, depending upon the economic situation.

*Next Month:* Associate Director H. L. Ahlgren of Wisconsin, Chairman of the Extension Committee on Organization and Policy, discusses changes taking place and some difficult problems facing agriculture. Then he discusses the nine program areas, from the Scope Report, which Extension must emphasize in this era of change.

Examples of progress in the Rural Development Program are cited by Under Secretary of Agriculture True D. Morse, Chairman of the RD Committee. He points out that citizens in many areas are taking literally the term, resource development—using all resources to develop the economy of a whole area.—EHR

The Extension Service Review is published monthly by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business. Use of funds for printing this publication approved by the Director of the Bureau of the Budget (July 29, 1955).

The Review is issued free by law to workers engaged in extension activities. Others may obtain copies from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 15 cents per copy or by subscription at \$1.50 a year, domestic, and \$2.00, foreign.





# WHAT IS MARKETING



**"The services and activities connected with moving goods from the producer to the consumer."**

by C. B. RATCHFORD,  
Assistant Director of Extension,  
North Carolina, and Chairman,  
ECOP Subcommittee on Marketing

THERE are many concepts of marketing. The many people involved tend to define marketing as just their position in the total process. To the farmer, marketing means selling to the person or firm who takes his produce. To the consumer, it is the retail stores. To the 10 million workers involved in farm marketing, it is a host of things, usually related to the specific jobs they perform.

Marketing was defined in a North Carolina publication entitled *North Carolina Accepts the Challenge* as: "The services and activities connected with moving goods from the producer to the consumer."

The 1954 Yearbook of Agriculture, *Marketing*, defines it as: "Part and parcel of the modern productive proc-

ess, the part at the end that gives point and purpose to all that has gone before.

"Marketing is getting the product to the consumer. And it is the product, too: The bread from the wheat, the cloth from the cotton, the steak from the beef, the salad from the lettuce. It is service and utility: The stores that sell the food and clothing, the railroads and trucks that carry the goods, and banks, elevators, markets. It is people and work.

"The basis of marketing is this: Farm goods must be stored, transported, processed, and delivered in the form, at the time and to the places that consumers desire."

Marketing may be further described either in terms of the functions performed or people who perform the functions. In earlier days, when farmers sold direct to consumers, they performed all the functions. With the coming of specialization, agencies or individuals with particular skills began to take over individual functions. Today several marketing functions may be performed by a single group, but increasingly each function is performed by a specialist.

## Marketing Functions

*Assembly of raw commodities* is bringing together the goods to be marketed. This takes place close to the producer.

*Grading* involves sorting a commodity into lots which have uniform characteristics as to quality, size, etc. Standards may be prescribed by State or Federal agencies or by an individual buyer or seller. Products may be graded several times during the marketing process.

*Transportation* is moving commodities from place to place in their route from producer to consumer. Most commodities are moved several times during the marketing process and several modes of transportation may be involved.

*Processing* means changing the form of the product or changing the raw product into the finished product purchased by the consumer. Processing may be quite simple, such as washing potatoes, or may be quite complicated, such as changing wheat to bread.

*Packaging* consists of putting a product into convenient form for

shipment, storage, and sale. Some products are packed and repacked several times.

*Storage* is holding products for future sale or use. It provides products for consumption over a longer period of time than the harvest period, reduces the extent of price fluctuations, and improves product quality by aging and curing.

*Risk taking* covers the possibility of loss from fire, flood, weather, insects, disease, spoilage, change in price, and other hazards. Often the risk is transferred to professional risk takers—insurance companies, futures markets, and speculators who make hedging possible. Regardless of who bears the risk, this is an important marketing function which must be paid for either through actual losses or by transferring it to professional risk takers.

*Exchange of ownership and pricing* involves the transfer of ownership of goods and the determination of compensation and conditions of sale. A number of auxiliary services are provided to facilitate exchange of ownership and pricing. Among these are sanitary inspection, market news, and market forecasting. Lawmaking bodies at local, state, and national levels have established rules regarding both exchange and pricing and the courts are available to enforce these laws.

*Credit and financing* provides funds for the establishment and operation of the many marketing functions. The entire marketing system requires large amounts of both short-term and long-term credit.

*Distribution* consists of disassembly or moving goods from points of concentration to the consumers. This is the largest single function in the entire process.

*Merchandising* involves the planning by a number of people to have the right merchandise or service at the right place at the right time in the right quantity and at the right price. It includes promotional activities, trademarking, competitive pricing, and salesmanship. Merchandising occurs throughout the marketing process but is intensified at the consumer level.

All farmers are involved in marketing but they are performing fewer and fewer of the functions described

(Continued on page 134)





# Where Marketing fits in Extension

by P. V. KEPNER,  
*Federal Extension Service*

**M**ARKETING is an integral part of a well-conceived educational program. It complements and supplements other phases of a well-rounded extension program.

The responsibility of the Cooperative Extension Service to conduct educational work in the field of marketing was recognized at the time the Smith-Lever Act was passed. The As-

sociated Congressional Committee report stated, in part:

"The itinerant teacher or demonstrator (referring to the proposed county extension agents) will be expected to give as much thought to the economic side of agriculture—the marketing, standardizing, and grading of farm products—as he gives to the matter of larger acreage yields."

Subsequent legislation has reaffirmed that responsibility—as have the demands of various groups seeking assistance from Extension. And as our marketing system has grown more complex, the opportunity and need for Extension to render educational assistance in marketing has broadened and become even more important.

## *High Priority*

This fact is recognized in the Scope Report recently issued under the sponsorship of the Extension Committee on Organization and Policy. Efficiency in Marketing, Distribution, and Utilization is listed as one of the nine major areas of program emphasis which should be receiving high-priority attention. With respect to this area of need, the report states:

"Paralleling efficiency in production is the necessity for developing the maximum practicable efficiency in the marketing, distribution, and utilization (including the consumption) of agricultural products. Herein lies a challenge and a responsibility for Extension to contribute to the welfare of the producer, the handler, and the general public simultaneously."

This reflects the realization that the welfare of farmers, and the total welfare, cannot be served entirely through extension programs dedicated to inducing greater efficiencies in the production processes. It reflects the fact that farming and businesses related to agriculture are so interrelated that extension programs must include the distribution and utilization of farm products.

## *Work with Producers*

While the primary objective of extension marketing work is to increase the efficiency of the marketing system, many facets of it are closely related to other phases of the extension program. For example, some market-

ing problems originate on the farm or at the first shipping point while the commodities are still under the control of the producer. In his management decisions the farmer must consider changes in the marketing system and market demands if he is to be most successful.

Extension workers, in making production recommendations, must keep in mind market demands and marketing problems. They must be prepared to advise regarding the proper handling of products so that they will move through the distribution process with the least practicable loss and wastage and with the highest feasible return to the producer.

Another example of the need for close coordination in extension programs is in the marketing information program for consumers. This program provides housewives, both urban and rural, and large scale food purchasers, such as restaurants and hospitals, with information which provides a firmer basis for making purchasing decisions.

Much of the information in this program comes from marketing economists, nutritionists, and technologists. Information on supplies and local production conditions is obtained from production specialists and agents. Agents and specialists assigned to this program must work closely with other agents and with information personnel in achieving greatest efficiency in reaching consumers through mass media.

## *Everyone Gains*

Between the producer and consumer are many handling, processing, and distributing firms receiving educational aid. Work with these firms increases their efficiency and, in turn, everyone in the marketing system benefits.

Much can be gained from a close working relationship between extension personnel working directly with producers and those working with marketing firms. For example, work with retailers has pointed out problems and opportunities in the production processes which should be reflected back to farmers. This is particularly true of problems originating

*(Continued on page 130)*



whom? what? how?

## Responding to the Challenge



### *How a supervisor serves as a communications link*

by C. R. HARRINGTON, Associate State Leader  
of County Agricultural Agents, New York

**T**HE Cooperative Extension Service is being challenged and urged to increase its work in marketing. County agents hear this challenge from their program and advisory committees and from people generally. Farm organizations voice the need for more marketing work. Marketing research workers urge the extension of the results of their work.

Responding to increasing interest, county agents are searching for answers to certain specific questions. They want to know what extension marketing work is. They need some help in defining extension responsibilities and opportunities in this field. They are searching for kinds of educational activities that will be significant contributions.

### *Seeking Answers*

Extension agents are looking for ways to work with marketing specialists. They are seeking help in explaining Extension's role in marketing to program and advisory committees.

Extension specialists in marketing who are responding to the challenge are looking for support from administration for their ideas and activities. They are seeking assistance in organizing training programs for other extension workers.

Marketing specialists are looking for guidance in the development of program suggestions for the extension staff. And they want their particular responsibilities to be interpreted to other extension workers.

As a member of the extension staff, the supervisor cannot be blind to these challenges, this responsibility, and the information available. The supervisor's responsibility is to be

a teacher of teachers, a stimulator, a consultant, and a representative of administration.

### *Activates Resources*

Playing his role of teacher, stimulator, and consultant, the supervisor can provide some of the communication that is necessary in a program of this kind. He may be a catalyst that brings together and activates the resources available from specialists, agents, and administrators to help meet this challenge of more effective educational work in the field of marketing.

The entire administrative staff has an opportunity to think through Extension's role in marketing. This requires an understanding of what marketing is, what some changes are in the marketing scene, and how extension organizes its resources to do an effective educational job.

Traditionally, extension work has centered around farm people. Opportunities exist to expand educational work in marketing with farmers and their families—helping them to produce in relation to market needs and demands, to understand the marketing system, to perform certain marketing services skillfully and efficiently, and to organize groups to provide other marketing services.

Extension programs of marketing information for consumers have been developing during the past 10 years. Improvements and expansion in these programs to help consumers understand marketing, use their food dollars wisely, and make effective use of purchased foods can be significant contributions.

Off-farm services are becoming more important in the movement of

products from the farm to the consumer. What is Extension's responsibility to people other than farm persons? If marketing is to become efficient, the people employed in these marketing firms are the ones who must make it more efficient.

Extension work in marketing is a team effort. County agents are helping farm families produce the kind of product that the market wants, and these agents are supported by specialists from several fields. In the movement of the product from the farm to consumer, again several fields of specialty are involved—the biological, physical, and economic aspects of marketing. How is the necessary team effort best developed?

### *Coordinated Support*

Extension marketing agents need to be supported by coordinated effort on the part of specialists. As a new kind of employee, they need to understand where they fit in the Extension Service; they need to know Extension's policies, history, tradition, and philosophy. They need to appreciate the relationships that exist between extension workers and between these workers and extension cooperators. What is the marketing agent's relationship to county agents, especially if the marketing agent is on a district or regional basis?

Not all extension marketing work can be done through agents. Some of this work requires highly trained specialists. How shall their work be coordinated with the work of county agents and district or regional marketing agents? How are the various specialties brought together to provide a unified approach to problems?

*(Continued on page 119)*

# Bringing home the market facts

*What a county agent learned at the terminal market*

by JOHN P. UNDERHILL, San Joaquin County Farm Advisor, Calif.

**T**IME and travel are wearying to a tomato. How can you take a fragile tomato from California to New York and put it in attractive goodness on a luncheon table there? This calls into play a vast array of skills and practical know-how.

What can California growers and shippers do to assure arrival of tomatoes in eastern markets in prime condition? To find the answers, I visited the New York terminal market.

## *Purposes of Trip*

Specifically, my assignment was to relate quality and condition at destination to the following factors: initial quality as determined by field production and weather conditions, maturity, and handling practices; transit, temperature, packaging, and loading factors; and conditions during distribution—ripening, handling, and retailing.

A second purpose was to develop teaching materials for use with growers, shippers, buyers, and receivers of California tomatoes. Information also was desired for research at the experiment station on handling and transit of tomatoes.

San Joaquin County is one of several counties that supply the major portion of the nation's fall market tomatoes. More than 10,000 carlots are shipped each season.

Tomatoes are shipped to eastern markets as "mature greens," at full size but before any color shows. While some ripening occurs during transit, final maturing is done in ripening rooms at the market. Most shipments

to New York are in transit 8 to 11 days.

In carrying out the study, 6 shippers in 3 counties were selected as cooperators. The six packing houses were visited daily prior to the market visit to observe fruit that was to be shipped to New York. Information obtained on each car included variety, routing, protective service to be used (icing, fans, vents, etc.), fruit pulp temperature on loading, and packing house treatment.

The trip to New York was made by air in order to be on hand when the survey cars arrived at the market. Data were collected on 52 cars at the packing sheds and 24 of these arrived at the New York market, allowing collection of complete data on

arrival condition. The remaining survey cars were diverted to other markets. Some 200 other cars of California tomatoes were also observed on the market.

## *Showed Research Needs*

On arrival, fruit was inspected for overall quality and condition. Detailed data were collected on maturity, decay, and temperatures in various positions in the car. In addition, the Railroad Perishable Inspection Agency furnished inspection reports on all cars of tomatoes shipped from California during the season.

Various lots of fruit were examined in the ripening room. Observations were made at different stages of ripening and on the condition and quality of fruit packaged for retail markets.

A number of tomato ripening rooms in the New York area were visited. Problems were discussed with receivers, ripening room operators, buyers, and wholesalers. Their ideas were solicited on condition and quality of California tomatoes and how they might be improved.

A complete set of colored slides was taken of the arrival of cars, unloading, stacking, agency inspections, buyers' inspections, auctions, ripening room operations, and wholesale displays. Close-up views of such problems as decay, bruising, and ripening were also obtained.

A major problem was the extreme variation in ripeness of the fruit on arrival. Tomatoes varied from 90 percent green fruit to less than 5 per-

*(Continued on page 134)*



A New York buyer, the author (center), and a California grower-shipper inspect arrival condition of tomatoes.



# The Right Place at the Right Time

## How area marketing agents find their "groove"

by R. B. DONALDSON, Agricultural Economist, Pennsylvania

**I**F you can't give adequate attention to local marketing problems, the solution may be area marketing agents. We've found this true in Pennsylvania, where marketing problems differ substantially from one section of the State to the other, and from one community to another.

Area marketing agents keep well informed on local conditions. When marketing problems arise, they give them immediate attention.

### Good Communication

Marketing information is transmitted from one agent to another, as well as to the State specialist staff. Through this communication, all staff members have up-to-date knowledge of conditions throughout the State. Specialists, in turn, assist wherever possible, either through in-service training or by going into the areas and working directly with the marketing agent.

This area program is designed to: create greater efficiencies in handling, processing, and distribution; expand markets; assist in the development of efficient market organizations and facilities; develop greater understanding by consumers of the importance of timely food buying; and get rapid adjustments by farmers, consumers, and marketing firms to changes in technology and current merchandising procedures.

To assist with this task, marketing agents are located in five areas of the State. Their services are available to farmers, marketing firms, processors, and consumers.

In December 1955, purely as an experiment, a marketing agent was placed in six northwestern counties of Pennsylvania. His instructions were quite simple, "to peddle his bicycle up and down the roads and not

sit in the office waiting for developments to occur." This was for the two-fold purpose of getting to know people and to learn their marketing problems.

He was not handed a definite stereotyped marketing program. Instead, he was given a green light to develop his program as opportunities materialized. And they did materialize in the form of commodity marketing programs with producers and distributors, organizational work with cooperatives, and consumer education activities through radio and newspapers.

Marketing of sweet corn presented a real challenge in this area. For many years growers had marketed their corn in a hit-or-miss fashion. Contact was made by the area marketing agent with the buyer of a large food chain and a new venture in marketing developed.

Growers agreed to make store-door deliveries of freshly pulled corn and the chain store agreed to pay top prevailing prices for daily deliveries. Thus, a successful marketing plan was born. This year we plan to repeat this plan to include other locally grown commodities.

### Find Own Groove

After the initial success in the northwestern area of the State, four additional marketing agents were appointed. Again these men were given no definite assignment or specific program—they were simply to determine problems and cope with them at the local level.

Marketing activities in these areas include a weekly television show on food buying; a weekly consumer release, "Family Food Facts," mailed to newspapers, radio stations, and representatives of consumer groups;

assistance in management problems and operation procedures of a recently formed vegetable marketing cooperative; assisting processors with procurement of quality fruit through better handling procedures; and materials handling and time-and-motion studies with a retail store organization.

Area agents obtain assistance in their marketing work from State commodity specialists. They also keep county agents in their areas informed of their activities and work closely with all county personnel. This area marketing program is unique because these agents have no specific program. They cover all phases of marketing and proceed where the greatest need exists and where the best opportunity for service presents itself.

Area marketing agents in Pennsylvania mean that timely marketing help is available to all who need it.

## THE CHALLENGE

(Continued from page 117)

These questions and these problems begin to point up the job of an extension supervisor as he works in the field of marketing. The supervisor needs to understand what marketing is and what Extension's responsibilities and opportunities are. He needs to recognize extension resources, the subject matter involved, and the people with whom educational work in marketing is important.

The general objective of an extension marketing program is to improve through education the overall efficiency of the marketing system for the benefit of producers, consumers, and marketing firms. But this objective poses three basic questions that are not foreign to education: Whom shall Extension teach? What shall it teach? How shall the teaching be done? From his position in the administrative staff of Extension, the supervisor can contribute to the answers to these questions.

# PUTTING RESEARCH to WORK

## How a utilization specialist works with textile mills

by WILLIAM J. MARTIN, Cotton Utilization Specialist, Federal Extension Service

COTTON utilization is one of the key operations in the complex chain through which cotton products become available to consumers. In the marketing phase of this chain, the baled lint must be transported, warehoused, and its quality evaluated and preserved until it is converted into yarn or fabric.

Extension cotton marketing and utilization programs are directed at those intermediate stages in the area from ginning, where the fiber is removed from the seed, to its processed form of yarn or fabric. There is naturally a close tie-in between marketing and utilization. Cotton's quality as determined in the marketing phase largely governs the end products into which it can be successfully processed.

### Timely Use of Research

The primary objective of educational work on cotton utilization is to get research results into the hands of textile firms who can make practical use of them in their daily operations. Another important phase is to bring current utilization problems to the attention of U. S. Department of Agriculture research agencies and develop research efforts to meet industry needs.

The research results used in this

program come largely from the Southern Utilization Research Development Division of the Department of Agriculture, from textile schools, and other private and public cotton improvement agencies. The SURDD, located at New Orleans, was established to further the utilization of southern agricultural products. More than half of its budget and research programs are devoted to cotton utilization.

Studies at the laboratory deal with both mechanical and chemical processing. Fundamental research is conducted on the structure and properties of cotton fibers and other phases of cotton utilization. Mechanical processing involves work on opening, carding, spinning, weaving, development of new and improved equipment for processing, and the design of fabrics for specific uses.

An important phase of the extension marketing and utilization program has been aimed at a better understanding of new technical developments and instruments and how they relate to manufacturing performance. This has been done through cooperation with State extension cotton marketing specialists and through contacts with the cotton departments of textile mills.

Personal contact is highly desirable in an educational effort such as this.

It has been said that research is a "state of mind" and this is certainly true of the application of research findings. In many cases, it becomes basic to the educational work to do a personal relations job and develop a research state of mind in the individuals who are to make use of the research development.

### New Processing Techniques

Machines and techniques have been developed at the SURDD for more efficient processing of cotton by textile manufacturers. One machine which has been rather widely adopted is an opener which fluffs up the cotton and enables subsequent cleaning processes to do a more effective job. About 100 of these are in operation in mills processing many thousands of bales per year.

Mills report savings of up to \$20,000 per year attributable to these openers. Other mills, where detailed figures are not available, report improved blending of cottons, better processing into yarn, and improved quality of yarns and fabrics. A further development, recently released, is a combination opener-cleaner.

Accurate figures are not available on how many mills have adopted im-

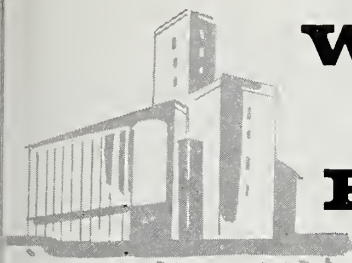
(Continued on page 132)



Semi-elastic cotton gauze bandage (right) originated at Southern Laboratory is compared with ordinary bandage (left).



# from WHEAT to FLOUR



## How a marketing specialist aids grain elevator operators

by JAMES R. ENIX, *Wheat Marketing Specialist, Oklahoma*

COMMERCIAL marketing of grain usually starts at the grain elevator. Here grain is received from the farm, binned according to quality, conditioned, stored, and merchandised. Here, too, the farmer usually obtains supplies needed in his farm operations.

Grain elevator operators are generally alert for newer and better methods of operation. They are anxious and willing to put plans into effect which help them become more efficient and serve their community better.

Today's grain elevator operators require knowledge in many fields. These include: merchandising, records and accounting, personnel and human relations, administration, entomology, biology, engineering, feed nutrition, fertilizer, farm supplies, credit, financing, grading, and quality. They have economic decisions such as: installation of labor saving equipment, expansion into new lines, and enlargement or location of facilities.

In Oklahoma, the Extension Service is working with the grain industry through educational programs which deal not only with current problems of the industry, but research information which results in improved service or more efficient operations.

**Outlook Information.** Current information is regularly supplied elevator operators through news bulletins on the domestic supply and demand for grain, export demand, and government programs applicable to the grain industry. The storage situation is appraised with respect to space

available, stocks on hand, and expected sales prior to the harvest season. Production prospects and forecasts are given regularly.

**Management Training.** A 2-day business management conference is held each year for elevator managers, assistants, supervisors, and foremen. Subjects covered are: functions of management, employee management, customer relations, facility management, inventory management, financial management, credit, and buying and selling.

A short course in grain and farm supply bookkeeping for grain elevators is held annually. The 1-week course consists of working a problem and making bookkeeping entries common to a year's business. Opening and closing entries, profit and loss statements, balance sheets, and other entries are completed.

**Quality.** Grain entering commercial channels is graded under regulations set forth in the U. S. Grain Standards Act. Grain grading schools for elevator operators are held in cooperation with State grain inspection departments. Samples of grain are examined for the various degrading factors.

Some grain dealers use variety identification in measuring its quality. Schools are held to teach variety characteristics so various lots of wheat may be identified by visual examination of the sample. Charts, colored slides, and samples of common wheat varieties are used to acquaint the elevator managers with variety characteristics.

**Storage.** Maintaining the quality of grain in storage is an important responsibility of the warehouseman. Losses may occur through biological

damage caused by insects, molds, and other factors. Two-day conferences are held to explore factors which cause grain to spoil in storage, economic factors of artificial grain drying, drying with atmospheric temperature, and batch dryers vs. continuous flow dryers.

**Clean Grain Program.** The Federal Food and Drug and Cosmetic Act requires that foods shipped in interstate commerce be wholesome, clean, and handled under conditions to prevent contamination. Demonstrations are held at centrally located elevators to explain insect and rodent control, food and drug regulations, sanitation, control of birds, and "pink" wheat detection.

**Youth Programs.** The Extension Service and grain elevator operators encourage 4-H, Future Farmers of America, and other youth organizations to learn the fundamentals of grain marketing and the function of the elevator. Activities include tours to elevators, training on how to read market reports, clean grain, and grain grading methods. Awards at fairs and grain shows emphasize grade, quality, and marketing practices.

**Mass Media.** Radio, television, newspapers, and farm magazines help explain the marketing program to producers. Exhibits are used at fairs and other public gatherings to depict the role of the elevator in grain marketing.

**Cooperation with Other Organizations.** Effective extension programs

*(Continued on page 129)*



Demonstrating how grain is graded.



# *This School Rang the Bell*

**How a retail marketing specialist helps bridge the gap between producer and retailer**

by **ROBERT L. BULL**, *Retail Marketing Agent, Delaware*

**H**ow to cut costs in marketing food and how to merchandise it more effectively—those were the objectives of nearly 300 tradespeople who gathered on the University of Delaware campus this spring for a 2-day short course in food retailing.

Job responsibilities of participants varied from store clerks to executive officers of leading chains. Most were retailers but wholesalers, food brokers, and manufacturers were also represented.

The concentrated program covered 18 subjects of current interest, with as many as four sessions conducted simultaneously. The short course faculty consisted of 25 specialists in various areas of food distribution.

Participants were enthusiastic as they accepted their certificates of completion at the closing banquet. They eagerly suggested other problems to be covered in the next short course.

## *Year-Round Activities*

Almost without exception, those attending the course had worked previously with Extension in seeking solutions to problems in marketing farm products.

During the past three years of active work with food distributors, the Delaware Extension Service has held 21 public training clinics for retailers and innumerable training programs for employees of individual wholesaling or retailing firms. Direct in-store consulting work has been done in hundreds of stores at the request of owners or managers. Hundreds of other merchants have received help by mail.

Retailers throughout the State receive a weekly bulletin summarizing new handling efficiencies, merchandising innovations, and market information. This periodical, sent only on written request, enjoys a good follow-

ing in the trade.

Several series of newsletters keep other members of the trade informed of extension programs and new marketing developments pertinent to their operations. A separate series is published for each of the following: grocery wholesalers, produce jobbers, meat wholesalers, dairy distributors, frozen food wholesalers, food brokers, roadside marketers, and food manufacturers' representatives.

## *How It's Organized*

This project is the primary responsibility of the agent in retail marketing. This work is closely coordinated with that of other marketing specialists who devote their time to problems of producers and to consumer information services.

County workers are fully informed on project developments and cooperate closely wherever the work relates directly to marketing practices of producers. The program is guided constantly and evaluated periodically by a State steering committee of 14 businessmen representing chain and independent retailer interests, food

wholesalers, and related businesses.

Results of the work are difficult to measure but have been encouraging, as these examples show. In one supermarket where backroom work simplification practices were instituted, sales climbed 35 percent with exactly the same labor input. Store personnel considered their work easier than before, even with the added volume.

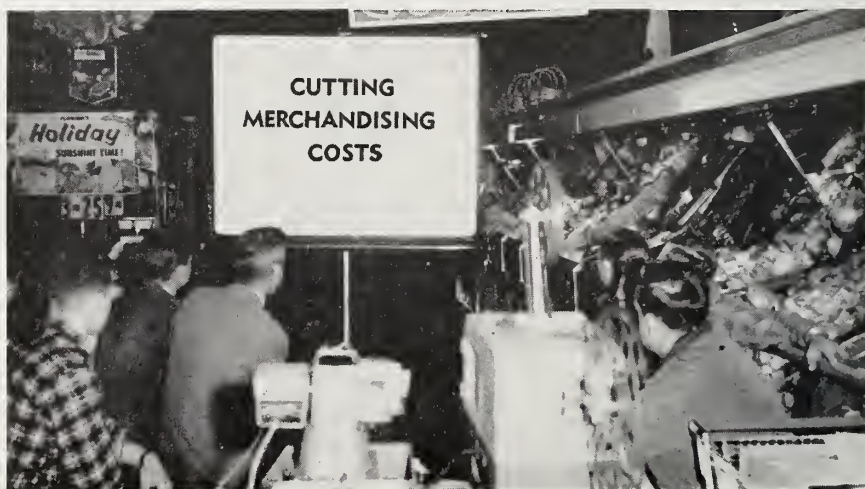
A large wholesaling company, for which an intensive classroom training program for supervisors was conducted, credits Extension's assistance with having been "a decisive factor in turning company losses into profits." A newsletter to brokers, outlining a plan for more efficient time utilization, prompted five firms to adopt improved methods with conspicuous economies and better service.

## *Benefits Producers*

Farmers benefit indirectly from results such as those just cited. Marketing work with retailers also has many direct and tangible effects upon farm profits, as the following examples illustrate.

The short course this spring brought together many potential buyers for cantaloupes that will be grown by a new marketing cooperative of farmers. The leaders of this farm group took advantage of this opportunity to discuss their marketing plans with the management of a retail chain and with a large wholesale receiver attending the short course.

*(Continued on page 130)*



In-store training clinic in Delaware supermarket.



# New Markets Don't Just Happen

**How extension economists helped develop a market for a new product**

by W. SMITH GREIG,  
*Agricultural Economist, Michigan*

EXTENSION specialists can help spark the development of new products and markets. As proof, here is an example of how a market was developed for potato flakes—a newly dehydrated mashed potato developed by the U. S. Department of Agriculture.

Recently a Michigan processor contracted with a growers' association for 150,000 hundredweight of potatoes to be used in a planned potato flake plant. This contract and new plant did not just happen—they were at least partially due to an intensive extension program.

Michigan's extension work on market testing and market development of potato flakes was undertaken at

a calculated risk. The risk was that perhaps nothing at all would result from the efforts. To counterbalance this risk, there was a possibility that this new product might have a large potential market, that Michigan might be an ideal location for processing this product, and that a large quantity of Michigan potatoes might ultimately go to market in this form.

Basically the market testing projects developed as follows: The Eastern Utilization Research Division, U.S.D.A., had developed a new process by which high quality dehydrated mashed potatoes could be made from eastern-grown potatoes. With earlier processes, only western-grown potatoes of very high dry matter content would yield a dehydrated mashed potato of acceptable quality.

Although technical data, estimated costs of commercial production, and results of one market test on potato flakes had been published, no commercial plants were in production. Interest in this new process and product developed among several different Michigan groups.

The interests of the different groups were consolidated and given direction at the first meeting of the processing committee of the newly formed Michigan Potato Industry Council. This committee was composed of potato processors, brokers, buyers, and representatives from growers' associations, State Department of Agriculture, Michigan Economic Development Commission, and extension specialists.

At the first meeting of the committee, extension specialists presented detailed information on technical aspects, costs of production, the market test, total trends in production of de-

hydrated mashed potatoes, current prices of institutional and retail packages of the western products, and demonstrated potato flakes made from Michigan potatoes.

The processing committee recommended that additional market tests be conducted, using potato flakes from Michigan potatoes. Since a consumer panel was already established in Detroit for another project, the first tests were consumer taste preference tests. Michigan potato flakes and the different forms of western products currently on the market were tested, with the consumer panel indicating a preference for the Michigan flakes.

## *Studied Other Potentials*

The committee then recommended further market testing and a study of market potentials at the institutional level was undertaken. Meanwhile, a retail test package was being developed.

Michigan potato flakes were demonstrated to 164 restaurant, hotel, and institutional buyers, and their reactions to quality, use, and market potentials were tabulated. The establishments were classified as immediate, potential, or no market for potato flakes, based on total reaction to the demonstration and answers given in the interview following the demonstration.

The high market potential indicated by this sample of establishments was expanded to State, regional, and national totals. A preliminary report was mimeographed and sent to interested individuals within four months after the initiation of the study.

Data on interregional competition were developed while the market tests were under way. Analyses were made of average farm prices, estimated cost of potato production, farmer-processor contracts in other areas, differences in dry matter content of potatoes, transportation costs to regional markets, and estimates of prices and sales of competing products. From these a projected cost and profit sheet for a proposed processing plant was developed.

A controlled retail experiment is currently under way to check comparative sales of different forms of



A chef's reaction to potato flakes.



Testing retail sales of a new product.

*(Continued on page 130)*

# HOW EXTENSION CON

## Research



## Extension Educational

All members of the Extension educational team—agents, specialists, supervisors, administrators—have a role in marketing.





# IBUTES to MARKETING

n

## Problems

## Audience

What do consumers want?  
When should I sell?  
Where should I sell?



PRODUCER

What do consumers want?  
How can I reduce cost of processing?  
How can I improve quality of product?



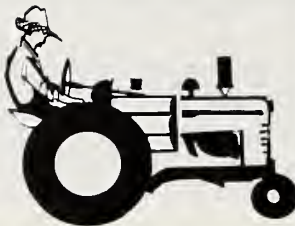
PROCESSORS & DISTRIBUTORS

What should I buy?  
When should I buy?  
Where should I buy?  
What should I pay?



CONSUMER

# MARKETING AID for PRODUCERS



## *How county agents help at the first step in marketing*

by R. P. ATHERTON, *Litchfield County Agricultural Agent, Conn.*

**I**F you want to know how much a county agent helps farmers sell their products, you won't find all the answers in his annual report. Look out in the county where the marketing job is carried along with all the other work. Marketing is so much a part of the whole that it's hard to separate.

A recent survey of Connecticut county agents revealed that a tremendous amount of time and effort is being spent in marketing activities.

Here are some results from the survey made in January 1958. The greater Hartford Regional Market now known as the Connecticut Marketing Authority, was opened in November 1952 after many years of education of farmers, wholesalers, retailers, and others.

County agents did yeoman's work in aiding the formation of the \$1.7 million project. The total amount of business conducted in 1956 amounted to \$30 million and the value of agricultural products marketed by farmers reached \$900,000.

### *Work with Cooperatives*

One agent reported: "We have worked several years to get our vegetable producers to develop a cooperative packing, grading, and marketing plant. We have not achieved this goal because there is insufficient volume due to the failure of growers to work together." Yet this agent's time hasn't been spent in vain. The educational facts he has given these people will "crop net" sooner or later in some better method of marketing.

Another agent says, "We have supplied our potato cooperative and in-

dividual growers with up-to-date information on types of packages, size, quality of potatoes, and the best variety for baking. We have tried to find out what consumers want and pass that information on to the growers."

An agent from a county where poultry are leading products reports: "We aided in organizing a cooperative marketing unit for the sale of broilers and eggs and in the formation of a cooperative slaughtering plant for poultry. We keep up with the latest egg prices and furnish information on the proper grading of eggs, poultry, potatoes, and fruit. Then the farmer has all the market facts and knows what prices to charge."

Other agents tell about giving assistance in the establishment of roadside markets. One agent aided farmers in bringing about a revision of zoning regulations so roadside advertising space might be available for farm stands.

Much time is spent by agents in supplying information to dairy farmers relative to the blend of prices of milk in Connecticut in comparison to other areas, supplies of milk, the effect of outside markets on Connecticut markets, and milk marketing orders.

### *Informing Consumers*

Home agents do their part in the marketing field, too. They work directly with groups of consumers and offer factual information on the use of products.

They demonstrate planning and freezing of fruits and vegetables and use mass media to tell about prod-

ucts raised locally and ready for market. They provide bulletins to the retailer on the use of locally grown products.

Agents report spending much time in feeding information on new marketing practices to producers, dealers, and retailers. These include the use of milk dispensers in restaurants, direct milk sales machines located where the public will buy, use of larger than 1-quart containers, and the discount plan to purchasers of larger quantities.

### *Methods*

What methods achieve the best results?

Methods with a group consist mainly of mass education—supplying information on market volume, market needs, increased or decreased consumption, stabilizing production to meet demand throughout the season, price comparisons between areas, and market regulations for dairy farmers.

With the individual producer, different methods are needed. He may need aid in finding a market or perhaps in becoming established in the marketing business. He may want drawings for a roadside stand—where to place it—how to arrange it. Perhaps he wants facts on grading and pricing.

One of the most pressing needs is to develop a better understanding between the producer and the consumer. Whenever the price of food rises—the producer is at fault in the eyes of the housewife. This lack of understanding is a brake on the sale of agricultural products.

There is much work to be done in this marketing field. We must continue and expand activities on behalf of farmers to get their products to consumers at a price which is fair for both.



# MARKETING —Farming's other half



## How county agents helped organize a marketing co-op County Agricultural Agent, Ohio

by C. H. BOND, Retired Henry

**P**RODUCTION is only half the business of farming. The other half is marketing. The most efficient producer in the world can lose his shirt with a poor marketing job."

That's what Prof. Theodore Macklin used to tell his farm management classes at the University of Wisconsin. And it's just as true today. One solution to the cost-price squeeze is for the farmer to get a fair price for a quality product.

### Locating Markets

How can county agents help farmers do this? They can work with farmers in improving product quality and locating markets that will yield a fair price. Our experience with an egg marketing cooperative in northwestern Ohio is a good example.

Early in 1939, agricultural agents from seven counties—Williams, Fulton, Defiance, Henry, Paulding, Putnam, and Hancock—met with poultrymen to discuss the lack of a market for quality eggs. Most eggs were brought on a mine-run basis by door-to-door hucksters, with the quality producer receiving the same price per dozen as his neighbor with poor egg quality.

Producers suggested a new cooper-

ative to market quality eggs. Agents were cautious. The extension service had helped to organize a similar undertaking in Fulton County in 1925 which failed within 5 years.

### Determining Need

Meetings were held in the seven counties to ascertain interest and needs for a quality egg market. Agents conducted surveys as to size of flocks, facilities for egg care, and marketing problems. Leading poultrymen observed cooperative egg marketing operations in two other areas and terminal facilities in Cleveland.

After these preliminaries, the poultrymen wanted action and expected agents to take the lead. Each county selected one poultryman to proceed and they incorporated the Northwestern Ohio Poultry Association. Raymond E. Cray, extension poultry specialist, was called in to aid in forming the co-op.

A goal of 400 high quality producer-members was set to insure adequate egg volume before marketing started. Four member solicitors were selected in each township and a total of 372 members joined in the seven counties. The \$5 membership fees furnished the only starting capital, amounting to \$1,860.

In addition to meeting with producers before marketing started, poultry specialists and agents visited the farm of every member to explain proper care of eggs to insure quality. Eggs were to be marketed strictly on a graded basis, with every producer receiving what his eggs were worth.

The word was spread among businessmen in the seven-county area that a new "big" business soon would locate in one of the towns. Businessmen in Napoleon, Henry County, bid highest by offering to pay half the first year's rent on a building. A local auctioneer donated his services for the first three months.

The association held its first egg auction in the rented building on July 14, 1939. Total marketing costs were 2½ cents per dozen, made up of 1½ cents to the auction, ½ cent for hauling and ¾ cent for the case. The first year volume was low—31,253 cases of eggs selling for \$209,461.32.

At the end of three months, Specialist Cray and each agent visited

members who had low egg grades to help find and correct the cause. At the end of a year, they again visited every member to help improve grades.

Egg quality was of the essence at the Napoleon Egg Auction—meaning higher prices, more profit, and satisfied members. This thorough educational program by the extension service was a major factor in a good start.

A survey was made after the first year to compare egg prices received by association members with prices received in a similar territory without such an organization. They were 17 cents per dozen higher at the Napoleon Auction.

The egg cooperative soon outgrew the rented building. As operating capital accumulated, the poultrymen built a large marketing building in Napoleon. Northeastern Indiana poultrymen were attracted to this good market and a large branch marketing plant was built in Albion, Ind.

### Quality Symbol

Techniques of marketing the eggs changed over the years. Actual auctioning was discontinued after 2 or 3 years as markets were established. About one third now are sold on order and the manager sells the balance by contacting city buyers by telephone daily. The trade name "Napoleon Eggs" is a symbol of quality in many eastern cities.

Facilities throughout the market channel maintain egg quality. These include rapid handling, large mechanical cooling rooms, mechanical graders, and refrigerated trucks.

In 19 years, the egg cooperative has grown in volume each year. It has furnished an excellent market for 5,463 poultrymen in 24 Ohio and Indiana counties and has sold over \$25 million worth of eggs in that time. Last year, the co-op marketed 246,556 cases of quality graded eggs for \$2,790,438.

Work leading to the establishment and successful operation of this cooperative was a major extension project. It involved months of agents' and specialists' time. But it has proved again that county agents need not fear becoming involved in farmers' marketing problems. Helping farmers solve these problems in the past has contributed to the present strong extension service.

# Reflecting Market Needs



## How county agents help the fruit industry face marketing problems

by R. D. BARTRAM and  
J. K. BALLARD, *Chelan County  
Agricultural Agents, Wash.*

APPLE and pear production, warehousing, and marketing are the major industry supporting the 40,000 residents of Chelan County. It accounts for three-fourth of the county's income. Naturally, fruit production and marketing are important in the county extension program.

Each year as part of extension program planning, 30 to 40 fruit industry representatives—growers, warehouse operators and marketers—are invited to discuss the question, "What the fruit industry faces." At the December 1957 meeting, this group presented two major problems which pointed up marketing as a major feature of extension work in the coming years. The goals are to increase efficiency of production and warehouse operation and to improve the marketing situation by controlling low

grade fruit and standardizing market containers.

During normal production years the C-grade, cull, and small size apples are major causes of depressed market prices. The apple and pear industry has also been gradually shifting from wooden to cell and tray packages of fiber containers. Lack of standardization of these containers makes it difficult for individual warehouses and market distributors to know which will be the most acceptable in the market.

### Price Analysis

In developing an extension program to aid in solving the above problems, the first effort was to analyze prices received over a period of years for different sizes and grades. Next it was necessary to gather information on average pack-out records from different orchards. Chelan County agents cooperated with adjoining counties in assembling average pack-out and price information.

To keep up-to-date on changes in containers the agents cooperated in carrying out a survey of 120 warehouses to determine plans for further changes in containers for the coming season. The survey indicated that warehouses would shift in container use so that 26 percent more of the 1958 crop would be packed in fiber or cell-type containers than last year. This pointed up the problem of supply.

A review of research on harvest containers showed that four agencies had been studying use of pallet or bulk bins for harvesting fruits. Two large warehouse units in another county had tried bulk bins in 1957. This information was assembled to evaluate practicability of converting to bulk bins for harvesting and how bulk bins might be used in warehouses for handling and storing loose fruit.

In meeting with grower groups on production problems, emphasis was shifted so that the four main cost production items—pruning, thinning, spraying, and harvesting—were discussed in relation to costs and improvement of quality of fruit. Charts were prepared to show the differences in return per acre by improving the sizes and quality of fruit. Average

prices received for different grades and sizes over a period of 8 years were used in these cost of production and price comparisons.

Information was assembled on containers, prospective shift in use of containers, and the possible use of pallet or bulk bins for harvesting to replace the standard wooden box. The information was used in discussing container problems with warehouse managers and directors.

To follow through, the same information was used in releases to daily and weekly newspapers, fruit grower magazines, and special bulletins prepared periodically by marketing information agencies.

### Improving Quality

Six orchards in the county were selected as demonstration orchards for summer meetings on production practices and techniques for improving the quality and size of fruit. Pack-out records on these orchards for the past three years were printed on large charts to be used in production meetings.

Information on pallet bin handling—in the orchards, from orchard to warehouse, and in the warehouse—will be demonstrated at a machinery and pallet bin demonstration sponsored jointly by the Fieldmen's Association and the Extension Service.

An apple industry committee was organized in early 1958 to analyze the possible use of a marketing agreement to control low grade fruit during high production years. Agents have provided this committee with information on production outlook and factors affecting the size and quality of apples.

Agents also assisted with two grower meetings to explain the possible effects of a marketing agreement. The industry committee is continuing its activities in educating fruit growers, warehouse operators, and marketers on the possible use of an apple marketing agreement.

One of Extension's big jobs with the fruit industry is to reflect market needs. We are doing this by keeping producers, warehouse operators, and marketing firms informed on efficient practices in production, grading, storing, packaging, and marketing.



# Everybody Gains when Producer Meets Processor

## *How this 4-H project contributed to better understanding of production and marketing problems*

by E. C. SOBERS, Assistant Schuylkill County Agent, Pennsylvania

WHEN producers and processors get together, the result is bound to be better understanding of each other's problems. This is certainly true of the 4-H potato chipping project held for the first time in 1957.

Pennsylvania was one of three States to accept an invitation from the Federal Extension Service to participate in the project sponsored by the National Potato Chippers Institute. Operated on an experimental basis in Somerset and Schuylkill Counties, it demonstrated a success story in cooperation. The 4-H Club agents had the active support of the potato chippers institute, and extension specialists in agronomy, pathology, entomology, 4-H Club work, and marketing.

To initiate the project, a meeting was called to establish rules and guides. Attendance included representatives of three potato chipping firms, State and local 4-H Club workers, and extension specialists. Then 4-H potato clubs were organized in the two counties.

### **Project Organization**

The Schuylkill County club consisted of 11 boys starting and completing chip potato projects. Members ranged from 13 to 19 years in age, with from 1 to 4 years in 4-H Club work.

Each boy agreed to raise one acre or more of Russet Rurals, the variety specified by the chipping firm. A complete soil analysis of the selected planting site and fertilizing according to the test recommendation were mandatory. The firm also promised to pay the cost of seed, fertilizer, and spray materials in the event of a crop failure by natural causes.

Only certified seed was acceptable, with all seed pieces treated according

to extension recommendations. The average amount of seed used by each member per acre was 30 bushels. Because of a severe wireworm outbreak the previous year, all planting sites were sprayed with heptachlor before planting.

Projects were frequently checked as to methods and numbers of cultivations and spray applications. An average of three cultivations and eight spray applications were made on all projects. At harvest, little or no insect and disease damage was found.

Twelve club meetings were held, with an average of 9 boys and 12 parents or other adults attending. Topics covered included identification of disease and insect damage on tubers, proper methods of taking a soil sample, treating of potato seed pieces, proper methods of spraying and cultivation, harvesting and storage, selection for exhibits, and commercial grading of tubers.

Extension specialists discussed many of the above topics at the meetings. A representative of the sponsoring company was present at each business meeting and the project tour.

The two-day tour included visits to Penn State's seedling plot and large potato storages and potato farms in New York State. The trip helped show members the size and scope of the potato chip industry in the Northeast.

All members exhibited their tubers at local fairs or the State Farm Show, with several winning prizes. Two of the top places in the county potato quality improvement contest were won by club members.

Four members joined the Pennsylvania 400 Bushel Club. In a high yields contest sponsored by a growers cooperative, two boys won second and third place. In the 4-H or FFA projects division, members won first, second, fourth, and fifth places and four members received 9 of the 18 prizes awarded.

A severe drought hit the county from the latter part of June until the middle of August, with most projects receiving little or no precipitation. Three club members were equipped to irrigate and applied three

inches of water during the drought period.

Yields ranged from a low of 189 bushels to a high of 723 bushels per acre. Profit ranged from a high of \$531 per acre to a loss of \$104 per acre. The boy who lost money had the low yield of 189 bushels per acre due to drought conditions and was reimbursed.

More than 25 potato growing families other than the members families, were reached by direct contact during the course of the project. This does not include families reached by news articles and radio broadcasts.

### **Emphasizes Changes Needed**

This 4-H project certainly strengthened relations between chipper and producer, and brought a better understanding of each other's problems. It showed producers that potatoes can be grown profitably for outlets other than the open market. It may help to pave the way for more orderly marketing of this staple foodstuff.

With the continued, rapid trend for more and more potatoes to be processed, it is important that 4-H projects reflect this change. Specialized varieties must be grown for specific end uses. Exacting harvesting, storage, and conditioning practices are necessary if the potato chipper is to receive an acceptable raw product. This 4-H potato chip project is an attempt to help bring about these changes, which require a closer relationship and better coordination between growers and processors.

### **WHEAT TO FLOUR** (Continued from page 121)

with grain elevator operators involve many departments of the university and other organizations and agencies. In addition to the department of agricultural economics, assistance is often obtained from engineering, agronomy, animal husbandry, biology, entomology, and others. State departments of agriculture, various agencies of the U.S.D.A., U. S. Dept. of Health, Education, and Welfare, and numerous other organizations and agencies also make major contributions to these programs.



## NEW MARKETS

*(Continued from page 123)*

dehydrated mashed potatoes as well as to test the demand elasticity. Since factors other than taste may govern relative sales, this test was primarily designed to determine whether the preference shown for flakes in taste tests would show up in actual sales. Design and development of the test package were coordinated through interested industry groups.

Since the beginning of the market tests, meetings were held with interested parties as soon as important new data were developed. These meetings were with growers, processors, and processor-grower-local interest groups. Test results were also disseminated through publications and other media.

Extension can claim some responsibility for the recent processor-grower association contract for 150,000 hundredweight of potatoes to be used in the planned potato flake plant. None of the principals involved had seen the product before it was demonstrated by extension personnel. Both the processor and the growers' association have worked and are continuing to work with extension on all phases of market testing.

## WHERE MARKETING FITS

*(Continued from page 116)*

at the shipping point or dealing with changing consumer demands.

Extension work with marketing firms is dramatically revealing the need for coordinated efforts on the part of specialists from several disciplines. Problems being encountered call for collaborative efforts on the part of engineers, economists, nutritionists, bacteriologists, chemists, and others. Another trend is the increasing employment of specialized marketing agents on a market area basis.

Close coordination is needed between specialists, marketing agents, and the general extension staffs in the counties. This will insure an efficiently operated and inclusive program providing essential educational services throughout the marketing process.

Marketing problems are prominent in the areas which county program planning and program projection

committees are listing as needing increased attention. Such analyses of county situations effectively point up marketing problems originating on the farm or at the first shipping point.

For problems beyond the first shipping point, usually occurring outside a given county, consideration by broader based committees or groups is necessary. Such considerations and analyses need to be directed to needs and opportunities on a market area or Statewide basis, and in some instances an even larger geographical area.

### *Need for Coordination*

This presents a big challenge to Extension ingenuity and vision—a challenge that is recognized and is being met with ever increasing effectiveness. But the very nature of the challenge and problems involved will require the best from all of us. It will require a high degree of coordination of effort, alertness, and dedication. It will require participation by extension workers serving rural youth through 4-H Club work, those working primarily with homemakers, and those working with producers and handlers.

The need, the challenge, and the place of marketing work in the extension program are obvious. Working together in a coordinated program, Extension can make another major educational contribution toward helping all those involved in producing and distributing agricultural products do a more efficient job.

## RANG THE BELL

*(Continued from page 122)*

These producers learned first-hand exactly what quality, sizing, packaging, refrigeration, and transportation standards they would have to adopt in order to get trade acceptance of their product. Fruitfulness of the meeting is evidenced by the chain retailer's offer to handle the 1958 cantaloupe shipments on a trial basis. He also invited the farmers to visit his stores (at the retailers' expense) to get direct consumer reactions.

The Delaware Swine Growers Association is typical of several farm organizations that have utilized the contacts and information services of

the retail marketing program to make their own marketing practices more profitable.

Speakers at the swine growers annual meeting were the agent in retail marketing and the general manager of a large pork packing plant that cooperates in the extension program. In talks and exhibits, these farmers learned what hog marketing improvements would be necessary if their industry is to grow and prosper in Delaware.

Mushroom quality deterioration studied while working with retailers prompted extension personnel to launch a major program of improving growers' marketing practices to prolong shelf life. Growers were encouraged and assisted in forming a trade association to promote mushrooms. Research was begun, with direct financial underwriting on the part of the mushroom farmers, to improve marketing practices.

Today there are better mushroom packages, improved handling methods, special treatments to retard discoloration, and improved merchandising. During the past year, mushroom sales per store in one chain have climbed 20 percent. Fresh market prices to growers have held steady even during periods of seasonally peak supplies, failing to take the usual plunge to lower levels.

Many farmers in Delaware have discovered that roadside selling offers greater net returns under their particular conditions than other marketing methods. Here again, extension's retail store experience with displays, pricing, packaging, and advertising has proven most beneficial to farmers.

On numerous occasions, the extension marketing office has served as a clearing house for farmers seeking ready buyers for perishable products and for retailers needing a certain commodity according to definite specifications. Buyers and sellers have been brought together to complete the marketing of such items as sweet corn, eggs, apples, and strawberries.

The indirect benefits of work with food distributors are of long term importance to everyone concerned. And the immediate direct advantages to farmers are important dividends from this investment of extension time and effort.



# *Let the Buyer Know— And Know the Buyer's Needs*

**How the marketing information program for consumers serves as a two-way communication street**

**by S. Q. HOOBLER, Federal Extension Service**

**M**ARKETING information programs for consumers have grown rapidly during the 10 years since the programs began. Specialists and agents in 38 States, Puerto Rico, and Hawaii are using mass media to bring market facts to more than half of the total population.

This rapid growth reflects the awareness of producers, the trade, and consumers of benefits to all groups from such a program. It also is an indication of progress in refining and fulfilling the program's specific objectives.

The marketing information program for consumers is an integral part of Extension's total marketing program. It contributes to improved marketing efficiency in two areas.

The program provides consumers (including quantity food buyers) with information which enables them to make informed purchasing decisions. The other area is that of bringing information on consumers' wants and needs to those who produce and market food products. The latter is also a basis for efficiently conducting a consumer marketing program by pinpointing information to specific groups.

Thus, marketing information programs for consumers serve as a two-way communications street. Even though the consumer may live thousands of miles from point of production, marketing information provides her with a basis for adjusting her purchases quickly to changing supplies, prices, new products, and other facts. Likewise, with a better knowledge of consumers' ever-changing needs and wants, producers and marketing firms can more efficiently fulfill consumer demands.

When Extension pioneered this type of program, workers moved into an area containing many unknowns.

Like earlier programs, there have been, and will continue to be, trial and error. However, research and observation have been the springboard behind what has taken place in programs subject matterwise, as well as in methods of disseminating information.

## *How It Began*

Prior to the establishment of consumer marketing programs, individual commodity marketing specialists developed information for consumers on such things as grades, supplies, prices, and new products. This information was disseminated directly to consumers in their State as well as used by home demonstration agents in their educational programs.

However, with the concentration of people in large urban areas and shipment of food long distances from producing areas, a national market for food developed. The former approach was found ineffective in reaching a large portion of the population.

To meet this need, consumer marketing information programs were established. Their aims are to provide consumers with marketing information on products coming from all over the country and to obtain information on consumers' needs for relating to production areas.

With the setting up of programs in urban areas away from land-grant colleges and universities, problems arose as to how these people could keep abreast of changes taking place in marketing. They needed to maintain continuous communication with other marketing specialists, outlook specialists, county agents, and production specialists, as well as specialists in producing areas in other States. Substantial progress has been made by many workers in establishing definite procedures for obtaining

facts from other production and marketing people. Thus they have a continuous flow of information which, with information from local trade and producers, gives a more complete and accurate food market picture for consumers.

Consumer marketing personnel in many States work closely with other marketing people in approaching particular marketing problems. Likewise, consumer marketing workers in many States serve on producer, marketer, and consumer committees in an effort to develop a better understanding of the problems of each group.

Most programs have given some emphasis to providing marketing information to institutions, particularly old-age homes, hospitals, and children's homes. Recently some States have been giving increased emphasis to providing similar information adapted to the needs of restaurant food buyers. Important contributions have been made in Michigan and Ohio; other States are making plans for similar restaurant programs. Indiana and Iowa have held restaurant management schools which are co-sponsored by their State restaurant associations.

## *Reflecting Consumer Needs*

In the second area of consumer marketing responsibility—reflecting the needs and wants of consumers—increasing emphasis is being given. Some personnel have studied data from commercial sources on the characteristics and purchasing habits of consumers. Others have studied USDA and other research on consumers' buying patterns and habits in order to assist other marketing specialists in interpreting needs and wants of consumers and to better pinpoint marketing information.

Consumer marketing workers have maintained close working relationships with producer groups and the trade and are increasingly being called upon for information about consumers—their needs and wants and the factors which motivate them. Many work closely with trade groups in providing educational assistance to their merchandising efforts.

To meet ever-changing needs, it is important to continually appraise all aspects of a program. Thirteen ex-

*(Continued on page 132)*



## RESEARCH TO WORK

(Continued from page 120)

proved procedures recommended by the laboratory. A cooperative demonstration in North Carolina was attended by representatives from 62 mills, most of whom are now giving the procedures a trial.

Figures from four mills show annual savings of approximately \$10,000, \$11,500, \$17,200, and \$18,000 from waste reduction. Other savings or benefits to the quality of products are intangible.

### Improved Products

One of the early accomplishments of the Southern Laboratory which found considerable use during the Korean War was the cotton conforming bandage or cling bandage. This was widely used by the Armed Forces and is now in production by the leading antiseptic bandage manufacturers.

Another development is heat and rot resistant cotton through partial acetylation. A treatment for tobacco shade cloth has enabled tobacco growers to use the cloth two or three times as long as the old type.

Chemical treatment gives cotton a flame resistant quality and this development has been used by the Armed Services and manufacturers of baby blankets. Much work has also been done on resin finishes to give

cotton fabrics wrinkle resistance and crease retention.

Since the extension cotton utilization program started in late 1954, more than 100 mills with a total of 5 million spindles have been visited. Other contacts include machinery manufacturers, trade organizations, and individuals interested in cotton marketing and utilization.

Current plans are under consideration to add State cotton utilization specialists in 4 southeastern States and a Federal specialist on application of research results in the chemical field. These programs are all directed toward prompt application of research findings for cotton to help produce better quality products at lower costs and improve cotton's competitive position.

## LET THE BUYER KNOW

(Continued from page 131)

tension studies have recently been completed or are underway that are aimed at providing information which will assist in the development of more effective programs. These will contribute greatly to both future subject-matter development and methods of disseminating information to consumers.

A newer development is that of obtaining more information on the factors which motivate consumers in buying foods. This knowledge will

provide a much better basis for influencing consumers to use marketing information and provide producers and marketers with information which can be used in merchandising work.

Particular emphasis was given this area in an Indiana study and one by a commercial research firm, under contract with the Federal Extension Service. This latter study developed methods for learning the motivational attributes of consumers both in food buying and in purchasing specific products, as well as their level of marketing knowledge and information on effectiveness of various mass media.

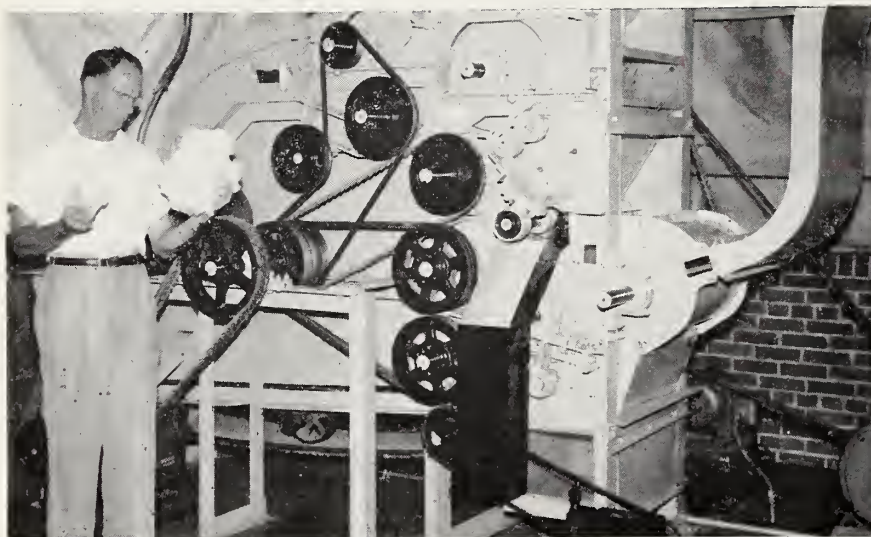
Other studies are concerned with the needs and wants of mass media and their effectiveness in reaching consumers. The New York City office is studying the needs and wants of newspapers, radio and television. Michigan has completed a study of the effectiveness of various mass media.

Yes, progress is being made in this program to let the consumer know and to find out what the consumer needs. And the foundation is being laid for even greater opportunities for progress in the years ahead.

## Monthly Revisions in Publications Inventory

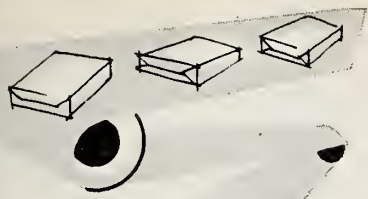
The following new titles should be added to the Annual Inventory List of USDA Popular Publications. Bulletins that have been replaced should be discarded. Bulk supplies of publications may be obtained under the procedure set up by your publications distribution officer.

- L 424 Food for Fitness—A Daily Food Guide
  - L 430 Cockroaches—How to Control Them—Replaces L 144
  - F 1443 Dairy Cattle Breeds—Rev. April 1958
  - F 1679 Popcorn—Rev. April 1958
  - F 2114 Lupines Culture and Use—Replaces F 1946
  - PA-338 Boosting 4-H Reenrollment
- The following has been discontinued but county offices may use any copies they have on hand. The title should be removed from the inventory list as USDA supplies are exhausted.
- G 38 Buy Your Home Sewing Machine.



New opener-cleaner for cotton textile mills combines superior opening and blending with high cleaning efficiency and reduces lint loss.





# Cutting Processing Costs

**How an economist helps marketing firms increase their operational efficiency**

by **GORDON A. ROWE,**  
*Economist in Marketing, California*

**I**NCREASING the efficiency with which agricultural products are marketed is important to the producer, processor, and consumer. Problems in operational efficiency exist in the plant packing fresh fruit, the cannery, the frozen food plant, and other types of marketing firms.

California's program in marketing efficiency centers around the application of industrial engineering techniques, sampling theory, and statistics, along with economics, for the solution of these problems.

The approach to these problems is functional. In-plant transportation problems tend to be quite similar, regardless of the commodity or form.

The application of sampling techniques is similar, whether the problem relates to sampling as a basis of estimating value or of estimating size distribution of a lot to permit efficient utilization in processing. Cost functions of the cotton gin and the fresh pear packing house both indicate the problem of high unit fixed costs with

relatively short seasonal operations.

The program as developed in California requires that the specialist work directly with marketing firms or industry organizations. County farm advisors are kept informed on projects in which they have an interest and are brought into the project when quality and farm management practices are related to the problem.

Cooperation with researchers in various departments is also important. In some instances work is carried out cooperatively with them.

## *Examples of Work*

**Carton Forming.** The labor requirement for forming cartons in citrus packing houses was a problem, particularly when mechanical filling was used. Improved methods utilizing a forming jig were considered possible and a project was initiated to develop and test them. Performance standards of the various methods in use were determined and utilized in developing an improved method.

The new method reduces labor costs for carton forming 50 percent in many plants. It has been adopted generally by volume-fill citrus houses. Recently a dried fruit packer was shown that by using this same method he could cut his forming crew for institutional pack cartons in half. Performance standards developed for a job through industrial engineering techniques permit the use of such information by many industries and commodities.

**Sampling Problems.** Sampling may be employed by marketing firms to estimate grade distributions or values of products purchased. This eliminates the delay or down time that occurs when separate lot systems are used and increases plant capacity. A problem of this type was solved for a walnut dehydrator.

Walnuts must be dried after harvesting and prior to packaging. With a relatively short harvest period and a large investment in dehydrator equipment, the tonnage dried per hour has an important effect on costs. The practice has been to dry each grower lot separately in 3-stage driers, each stage holding 1 ton of walnuts. A preliminary survey indicated only 70 percent utilization of drier capa-

city because growers do not deliver lots in 1-ton units.

A procedure of selecting undried walnut samples to estimate dry weight and grade distribution or value of grower lots was considered a solution to the problem. The co-operation of the department of agricultural economics was helpful in development of theoretical considerations of the sampling problem and in carrying out the work.

The sampling procedure developed for this plant has been in operation for two seasons. It has increased plant capacity and reduced costs. The plant management estimates that sampling has reduced costs of processing \$12 per ton.

Another important project is being carried out in cooperation with the National Cannery Association. For efficient operation, cannery must use sampling procedures to secure information on deliveries of raw products. For example, knowledge of pressure test (maturity) of given receipts of pears enables efficient production scheduling and utilization. The problem is to determine the sampling system and size of sample for evaluating each delivery. It is basic to efficient utilization and plant operation.

Sampling to determine size distribution is important to peach and tomato canners. Decisions as to the type of pack and can size may be made from such information. This results in maximum utilization of the raw product and minimum canning costs.

The above examples indicate some of the problems being considered. Other activities relate to bulk handling, packaging, plant transportation, and materials handling procedures.

## *Benefits Observed*

Experiences during the last several years indicate several important features of such a program.

- Unlimited opportunities exist to increase marketing efficiency. Response by marketing firms and industry organizations is excellent.

- Solutions to the problems require background and training in industrial engineering, statistics, and economics. Because of the nature of

*(Continued on page 134)*



## WHAT IS MARKETING?

*(Continued from page 115)*

above. Farmers must still make the decisions of what, when, where, and how to market. They may haul the produce to the point of first sale and may do some grading and packaging at the farm level. A few farmers still do the whole job by selling direct to consumers but the trend toward farmers doing less of the marketing job is likely to continue.

The bulk of the marketing function is performed by more than 1 million firms employing in excess of 10 million people.

An important group of marketing firms deals with the farmers and starts the assembly process. This group includes the local cash buying stations, auction markets, country buyers, elevators, and local processing plants. It is at this point that farmers' prices are determined and the first exchange of ownership takes place.

In addition to the local shipping and assembly points, approximately 100,000 firms process farm products. Thousands of elevators, warehouses, and cold storage plants specialize in performing the storage function. Railroads, shipping companies, trucking firms, and airlines transport farm products.

A vital role is played by a large group of firms, individuals, and institutions who never physically handle or even see the farm products. This includes the commodity exchanges, futures markets, speculators, banks, courts, and advertising agencies.

The largest single category of firms involved in farm marketing is in distribution, including wholesalers and retailers. There are 34,000 food wholesalers and 350,000 food retailers in this country. Retailing accounts for a larger proportion of marketing costs than any other marketing function.

### *Role of Extension*

In conducting extension marketing programs, we must work with those who perform all these functions. As the preceding clearly indicates, most marketing is done by nonfarmers. This means that major marketing efforts should be devoted to those firms doing the marketing.

This approach must be followed if we are to attain the major objective of increasing farm income. Farm income can be increased through an educational marketing program with firms by increasing efficiency, expanding sales of farm products, and passing all or part of the gains back to the farmers.

## CUTTING COSTS

*(Continued from page 133)*

the problems and industry organization, primary reliance on the specialist to carry out the program is indicated.

- Research results are not available to solve all problems. A certain amount of applied research may be required on the part of the specialist.

- The functional approach to problems in marketing efficiency is highly desirable. Industrial engineering techniques, for example, may be basic to solving a problem in the citrus industry rather than knowledge of citrus as a commodity.

- Cooperation of industry, researchers, equipment manufacturers, and others is important to the success of the program.

## MARKET FACTS

*(Continued from page 118)*

cent. This makes it necessary for receivers to maintain extensive ripening rooms and sorting operations which greatly add to marketing costs.

Fruit which is green on arrival is not as good quality when it reaches the consumer as fruit that is ripe on arrival and of good quality. This revealed the need for research on the ripening characteristics of different varieties, methods of selecting mature green fruit of uniform ripeness, shortening transit time, and developing procedures to allow shipment of fruit in more advanced states of ripeness. Investigations along these lines are now underway at the experiment station.

Another major problem is decay which has an important effect on the market price. Of particular importance are wet rots which produce excess moisture that accumulates on the outside of packages. These are sold at reduced prices or discarded. Study of this problem and investiga-

tion of the possibility of reducing wet-rot by fungicide applications in the field or packing house are now underway.

Decay is sometimes apparent when the fruit is packed. Education to eliminate infected fruit on the packing belt is now incorporated in the extension program.

Previous research had shown that field and transit chilling seriously affects the ripening ability of tomatoes. An icing schedule developed from these investigations resulted in improved quality of tomatoes on arrival. Many California shippers adapted this new practice but some receivers on the eastern market buy cars on an F.O.B. shipping point basis. They control the car during transit and still use the old methods of icing.

There is a notable lack of understanding of horticultural aspects of fruit and vegetables by market personnel. This indicates a need for extension work in terminal markets.

### *Aid to Local Program*

A 26-page report was compiled on the observations made and data collected during the survey. This report was distributed to growers, shippers, and other tomato industry members.

One of the greatest benefits of a market survey is to the farm advisor. The extension man who has visited these markets is in excellent position to carry on an educational program with growers and shippers.

He has probably made a much closer observation of market conditions than shippers and may have seen many things that they missed. Few growers have visited the terminal markets so the farm advisor can advise them on market factors which must be considered in growing crops.

The real payoff came when the complete slide series of the marketing of California tomatoes was presented to growers. The conditions and quality of the fruit on arrival, plus the difficulties involved during transit and distribution, gave growers a clear understanding of the problems involved in marketing their crops. It focused attention on marketing problems directly related to production practices and stressed the interrelationship of production and marketing.



# How does THIS help the Farmer

by L. H. DAVIS,  
Federal Extension Service

## How our economic system distributes benefits from increased marketing efficiency

A FEW years ago, County Agent Jonathan Doe helped potato farmers in his county adopt DDT for insect control. He had a justifiable pride in his accomplishments as he saw their yields increase and costs per bushel go down. There was no doubt—he had helped them to a better living.

An agent in another county helped a feed company establish a poultry dressing plant. He had the same pride in accomplishment as he saw new markets open to his farmers and as they increased their poultry production. There was no doubt—he, too, had helped them to a better living.

In another county a specialist suggested work to help a processor reduce operating costs. In still another county, someone suggested work with retailers and wholesalers. These agents, already overworked, asked, "How does that help the farmer?" That is certainly a "good question." Indeed, all extension agents have so many demands on their time and opportunities for constructive work that they must carefully evaluate the costs and benefits from each alternative activity.

### Early Adopters Gain

Let's go back to Agent Doe and his potato farmers. Two years later potato farmers everywhere were using DDT and getting higher yields. Potato grower meetings had the smallest attendance Agent Doe had experienced. He heard one leader speculating that DDT had put a lot of them out of business.

The agent knew that fewer acres were now required to produce our potato supply. He also knew his farmers had received short run benefits as early adopters of DDT and that they would have suffered more had they not been early adopters. Now he was helping them to become early adopters of other new developments.

The poultry situation changed, too, as more dressing plants were built, integration became general, and other economies were realized. Lower costs were reflected in lower prices. Consumption of poultry climbed and more farmers went into the poultry business. Producers and marketers in that county, with the help of their county agent, continued to be early adopters and picked up new advantages to replace advantages lost.

Are these hypothetical, yet realistic, situations very different? One represents work called "production," the other work called "marketing" (help to a marketing firm serving farmers).

In both cases, early adopters obtain substantial benefits and in the long run our competitive system distributes benefits broadly through the economy. Some producers gain in the long run and others are at a greater economic disadvantage than before.

How about work with marketing firms farther from the farm? If we help a food retailer reduce his costs, how does this help the farmers?

The available data indicate that, among marketing firms as among farmers, early adopters of a new development increase their profits—gain from the new development. But our competitive system passes the savings on to consumers and producers as the development is generally applied.

Consider these facts. During the last 20 years, consumers have continued to spend about the same proportion of their incomes for food—around 25 percent. Per capita income has increased greatly. So have costs of growing and marketing farm products, but they have gone up less rapidly than consumer incomes, due to increased efficiency of production and marketing.

In other words, if today we all bought the same foods in the same form as 20 years ago, it would take only 16 percent of our income and

require fewer farmers and less farm land than we now use.

But we are not eating the same foods in the same form. During this 20-year period, per capita consumption of the following foods has gone up by about these percentages: poultry, 110; other meats, 35; fresh and processed fruits, 12; vegetables, 23; fluid milk and cream, 9. Consumption of some foods has declined.

On the whole, consumers have substituted higher priced foods—foods requiring more farm resources in their production—for foods with the opposite characteristics. Also, consumers have bought more marketing services. This has helped keep thousands of people profitably employed in agriculture and make us all better fed, more healthy citizens.

### The Goals

Certainly these results are consistent with extension's goals. They are the results we seek in working for a more efficient production and marketing system—working through the whole marketing system—and why we work for rapid general adoption of new developments.

What do we mean by an efficient marketing system? This is what we seek: A system that performs assembly, processing, storage, transportation, and distribution services at low cost—A system that provides the products and services demanded by consumers—A system that quickly and accurately reflects consumer demands to producers and supply conditions to consumers—A system with the kind of competition that brings about fair prices and profits and that encourages increased efficiency.

The extension workers seeking this goal of increased marketing efficiency may not see such dramatic short run gains to individual farmers as the man helping with farm production decisions. But their contributions in the long run are just as real, substantial, and important.

## IF WE START WITH THIS SITUATION:



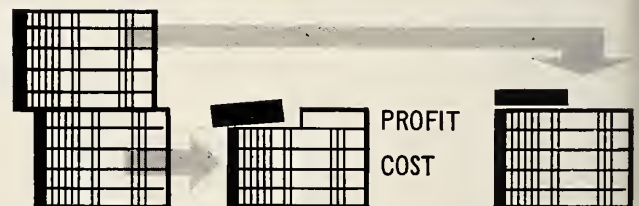
## WHO BENEFITS WHEN INCREASED EFFICIENCY REDUCES MARKETING COSTS? It May:

Make more profit for marketing firms

Bring a higher price to producers resulting from competition among marketing firms for supplies



OR



OR

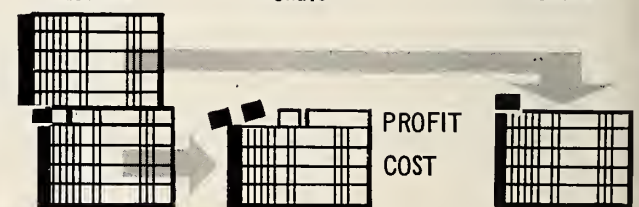
OR

Bring lower prices to consumers resulting from competition among marketing firms for sales

Some of the benefits may flow to all three groups:



OR



In a dynamic economy the gains from increased efficiency may shift back and forth among producers, marketing firms, and consumers.